

No. 693,923.

Patented Feb. 25, 1902.

D. C. STORR.
COUCH BEDSTEAD.

(Application filed Mar. 20, 1901.)

(No Model.)

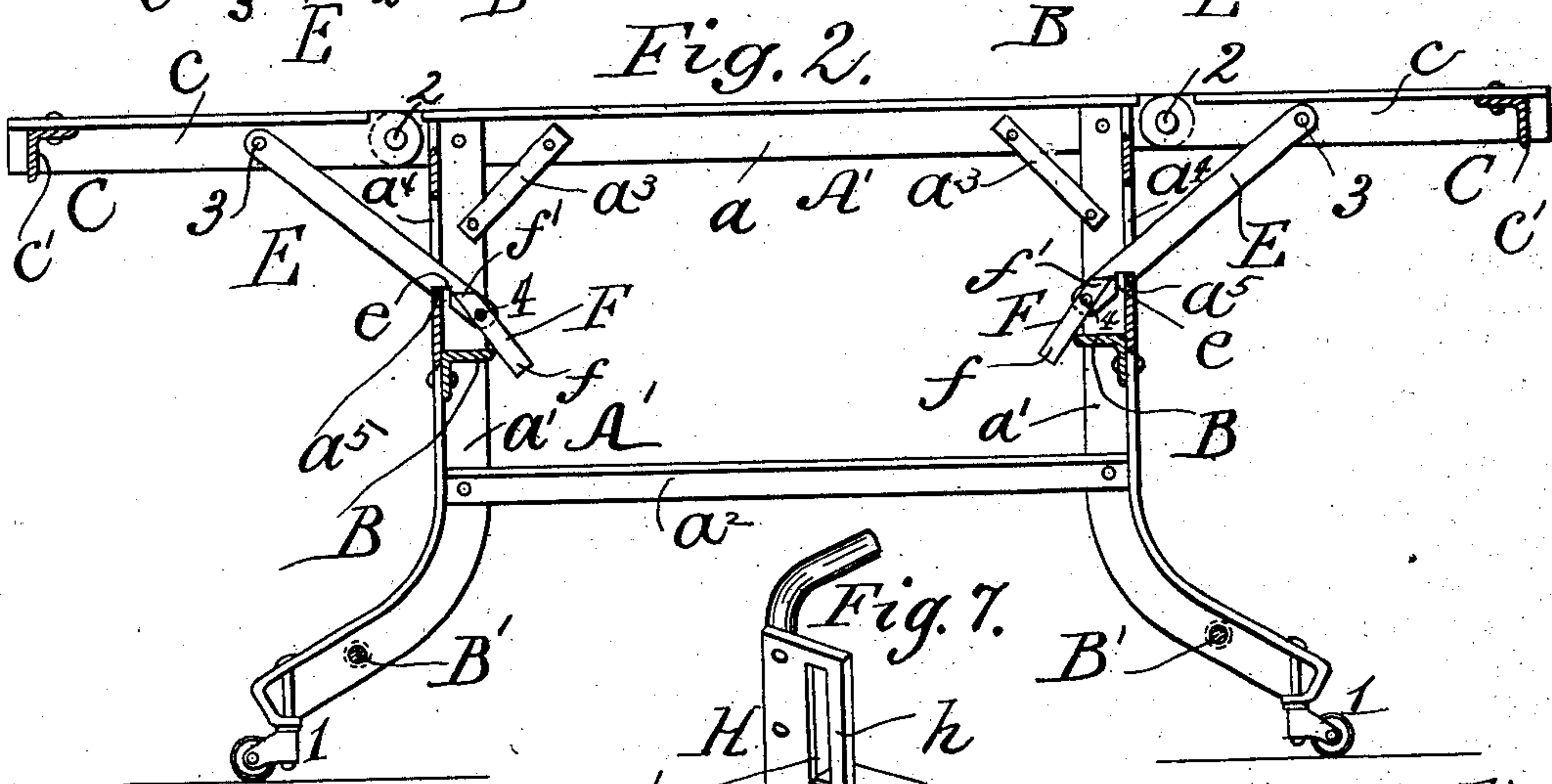
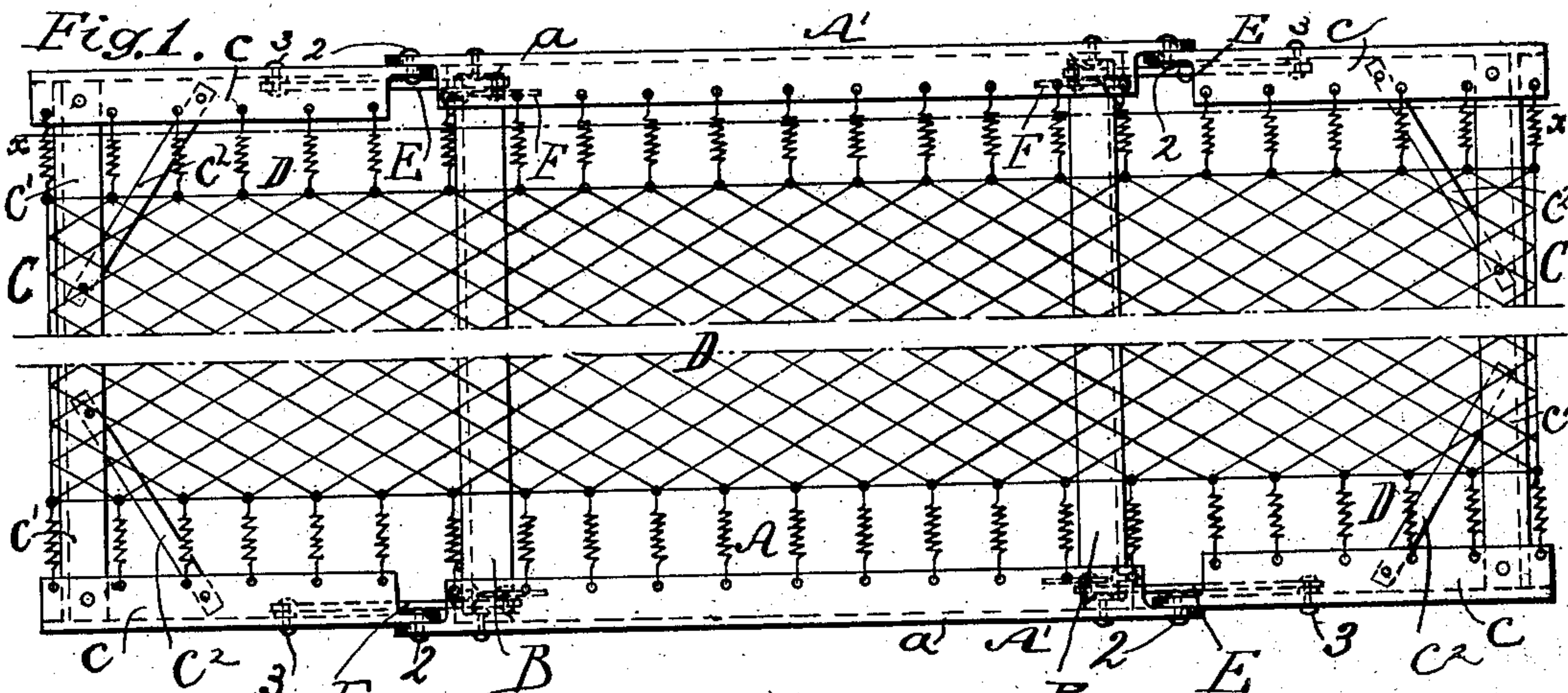


Fig. 3.

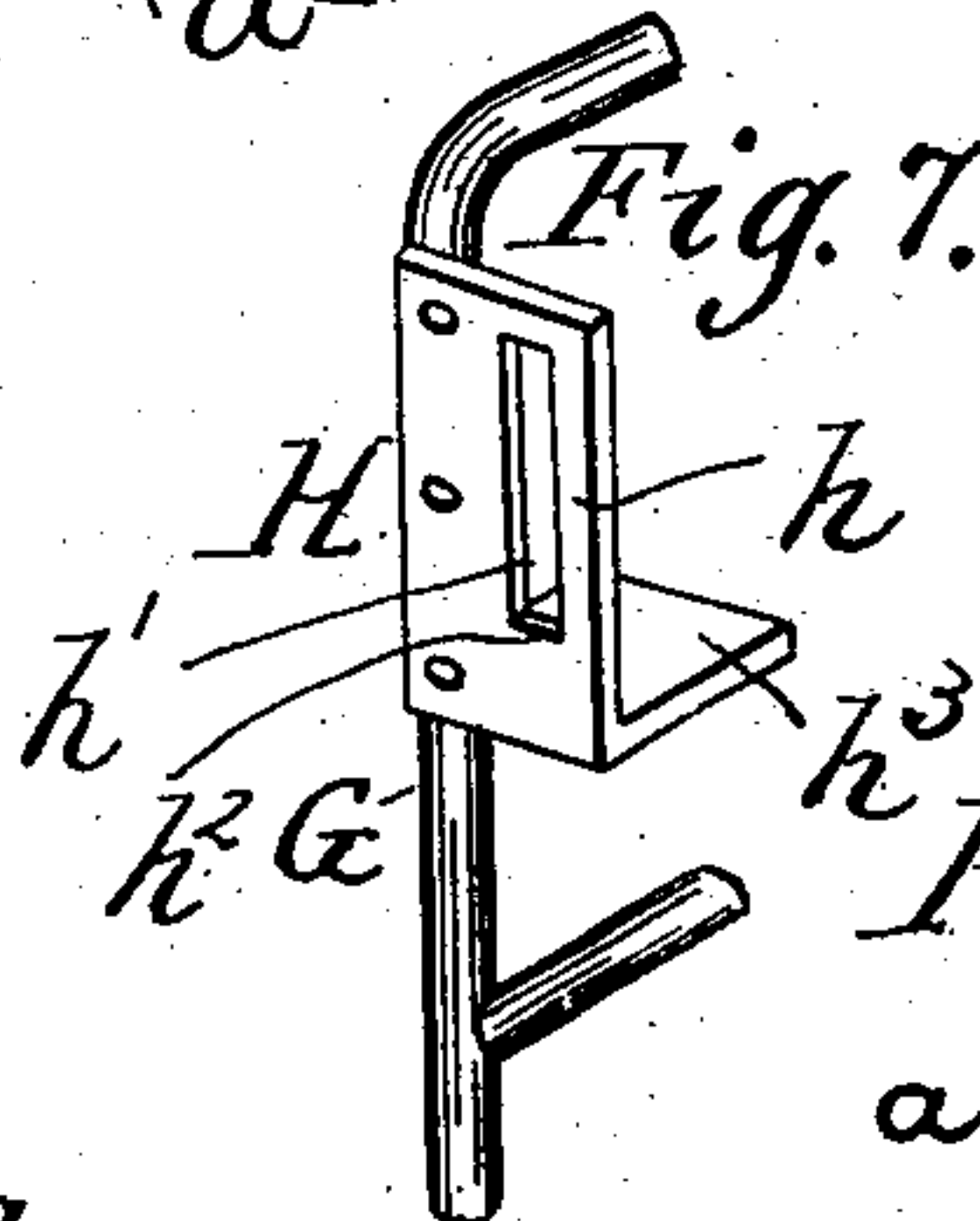
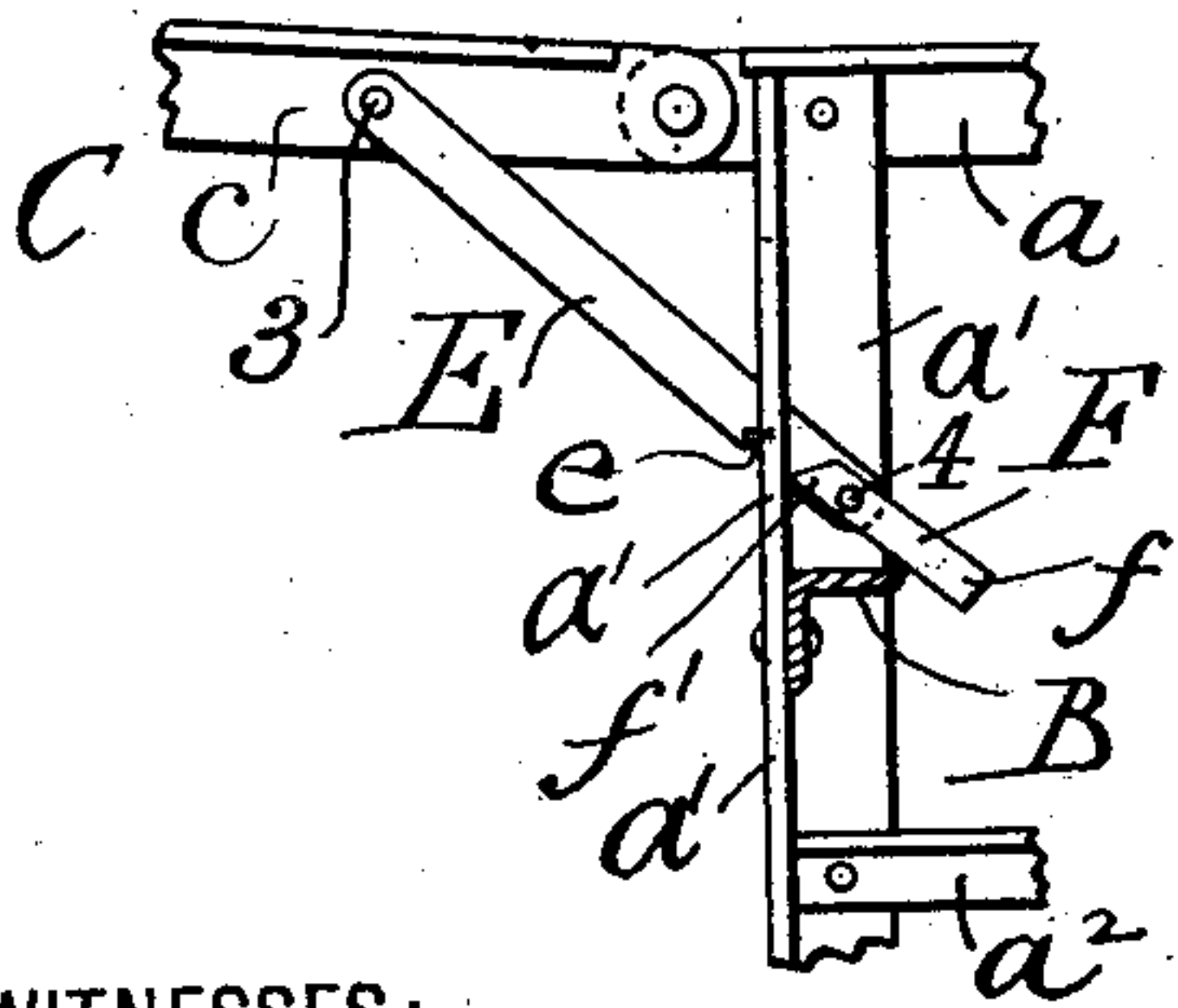


Fig. 5.

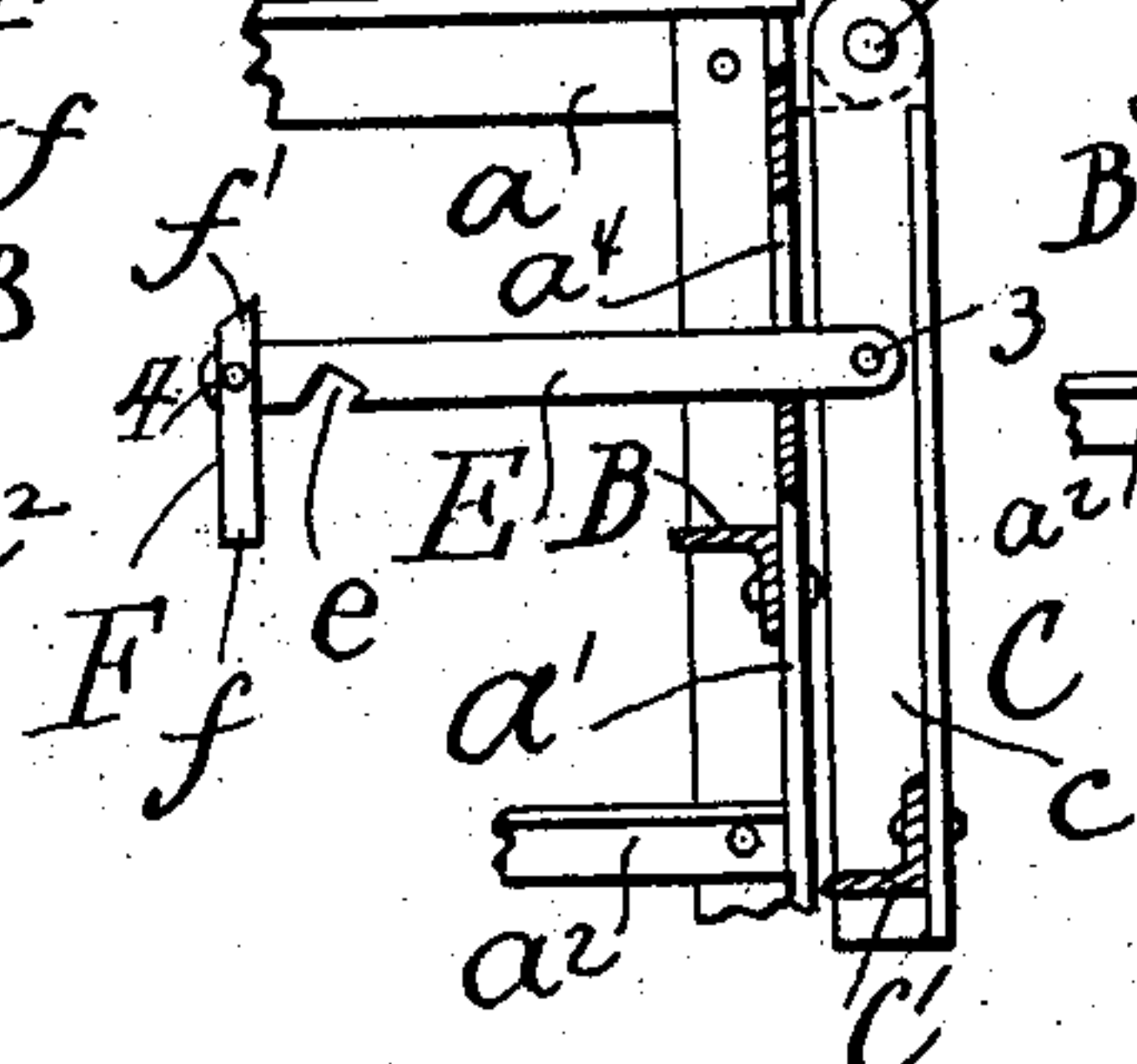


Fig. 4.

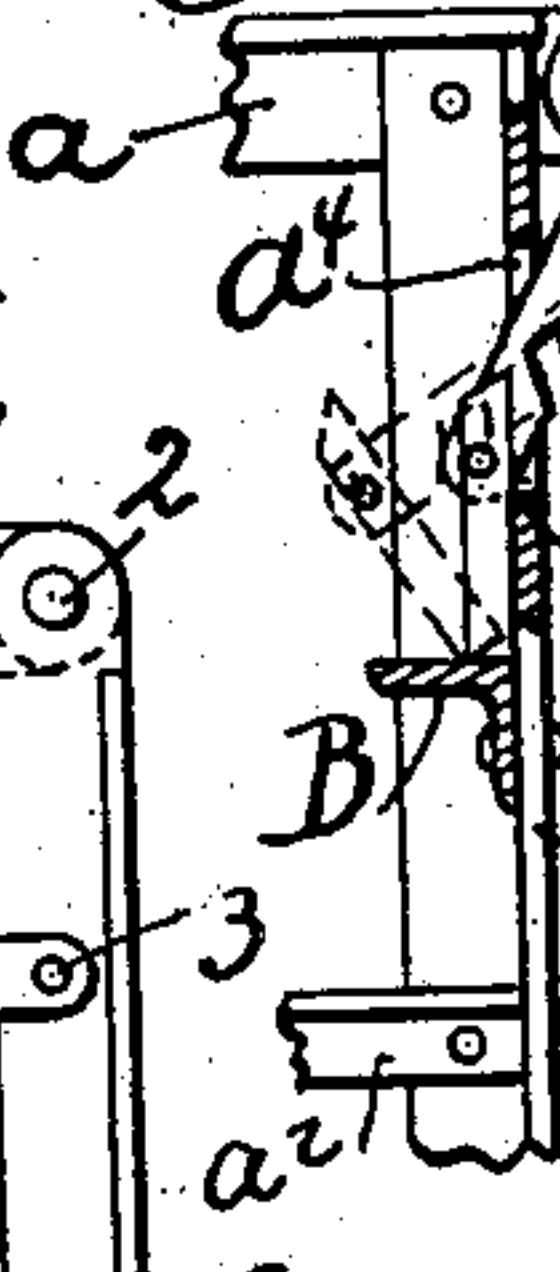
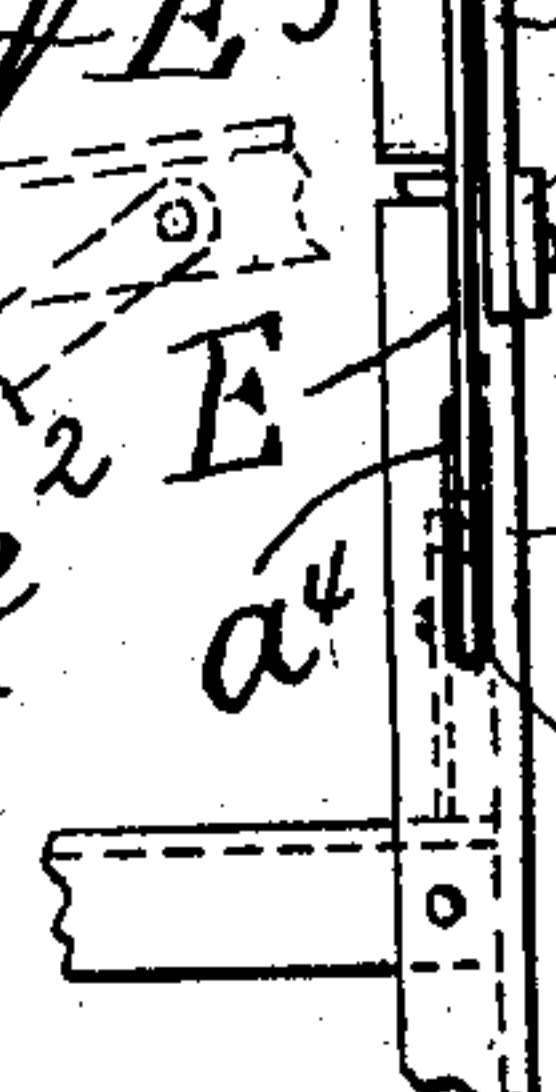


Fig. 6.



WITNESSES:
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UNITED STATES PATENT OFFICE.

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COUCH-BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 693,923, dated February 25, 1902.

Application filed March 20, 1901. Serial No. 52,019. (No model.)

To all whom it may concern:

Be it known that I, DAVID C. STORR, a citizen of the United States, and a resident of New York, county of New York, and State of New York, have invented certain new and useful Improvements in Couch-Bedsteads, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar characters of reference indicate corresponding parts.

This invention relates to couch-bedsteads of the class embodying a couch or sofa frame and swinging side extensions; and the object of the invention is to provide efficient and automatically-operated means for supporting and maintaining the side extensions in horizontal position and for tripping or releasing the supporting mechanism, whereby the device is readily and quickly convertible into its two respective forms and which can be operated by the expenditure of but a minimum of force.

The invention will be hereinafter fully described, and specifically set forth in the annexed claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of my improved article of furniture, showing the parts in position extended for use as a bed; Fig. 2, a cross-sectional elevation taken on the line xx of Fig. 1. Figs. 3, 4, and 5 are detail views, in end elevations, illustrating the operation of the supporting and fastening means. Fig. 6 is a detail view in side elevation, and Fig. 7 is a perspective detail illustrating a slight modification.

In the practice of my invention I employ primarily an iron or other metallic couch or sofa frame A, which comprises the angle-iron end uprights A', embodying, respectively, a top cross-piece a , angle-iron legs a' , cross-beams a^2 , and strengthening-braces a^3 , the longitudinal angle-iron side pieces B, and tie-rods B'. This said frame is preferably mounted upon casters, as 1. I preferably employ angle-iron in the construction of the couch-frame, but other material may be used, if desired, such as iron tubes, or I may use a wooden structure.

Hinged to each side of the couch-frame A by means of pivots 2, which engage the ex-

tended ends of the top cross-pieces a , is a swinging frame C. These frames are preferably composed of angle-iron, but other material may be employed, and they respectively embody angle-iron ends c , a longitudinal side c' , and suitable braces, as c^2 .

Stretched across the device and supported between the end parts of the structure is a suitable wire spring D, which is adapted to support a flexible mattress.

As a means for maintaining the side extensions or frames C in horizontal position, as illustrated by Figs. 1 and 2 of the drawings, I pivotally connect to the inner surface of each end piece c a supporting-bar E. These bars loosely swing upon pivots 3 and respectively pass through and are guided by slots a^4 , formed through the sides of the upright portions of the angle-iron legs a' of the frame A, or if the ends of the couch-frame are composed of tubular iron or other material I may attach to the legs G a plate H, embodying a vertical guide-plate h , having a slot h' , which forms the shoulder h^2 and also an extended horizontal platform h^3 , as illustrated by Fig. 7 of the drawings. Each bar E is provided near its free end with a notch or recess e , which embraces the shoulder a^5 , formed by the slot a^4 , and rests thereon by gravity, whereby the frame C is securely supported in horizontal position, and the bar E acts as an efficient supporting-brace. Loosely pivoted to the free end of each bar E by means of a pivot 4 is a trip-pawl F. These trip-pawls embody, respectively, an elongated lower part f and a shorter upper part f' , having a pointed end, whereby the lower heavier part rests by gravity against the horizontal portion of the side piece B of the frame A, and the upper part contacts with and slides against the leg a' of said frame during the operation of swinging the side extensions, as will be hereinafter fully described.

In the operation and use of the invention when it is in position for use as a bed, as illustrated in Fig. 2 of the drawings, and it is desired to convert it into a couch it is simply necessary to lift each frame C upwardly until the trip-pawls contact at their upper pointed ends with the uprights a' . Then further upward movement of the frame gradually carries said trip-pawls into vertical po-

sition, whereby the recesses e are out of contact with the shoulders a^5 of the slots a^4 , as shown by Fig. 4 of the drawings. Then by dropping the frame C into vertical position 5 (shown by Fig. 4 of the drawings) the trip-pawls will tilt inwardly and swing the bars E free of the shoulders a^5 and allow said bars to assume the position illustrated by Fig. 5 of the drawings. To reconvert the device 10 into a bed, it is simply necessary to lift the frames C until the notches e automatically engage the shoulders a^5 .

It will be especially noted that the operations of the trip-pawls F and the bars E are 15 automatic, and owing to their loosely-pivoted connections and the novel proportions of the trip-pawls the action is invariably positive, and the simplicity of construction obviates all liability of accidental disarrangement of the 20 parts, and owing to the extended upper portions of the trip-pawls which engage with the uprights a' it will be further noted that these trip-pawls cannot be accidentally thrown or swung out of operative position during the op- 25 eration of swinging the hinged extension of the bed.

I do not confine myself to the specific details of mere mechanical construction as herein shown and described, as it is obvious that 30 under the scope of my invention I am entitled to slight structural variations.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

35 1. As an automatic supporting and releasing device for swinging couch-bed sections, the combination, with a loosely-pivoted bar having a notch therein, and a loosely-pivoted depending trip-pawl on the free end of said 40 bar, the trip-pawl embodying a flat plate hav-

ing a squared lower end and a beveled upper end, the lower end being heavier and longer than the upper end, of a stop for engaging the said notch and a right-angled surface, for contact with the trip-pawl, substantially as shown 45 and described.

2. An automatic supporting and releasing device for use in connection with couch-bed-steads embodying a couch-frame and swinging sides, comprising a swinging bar having 50 a notch therein for engaging a shoulder, and a swinging trip-pawl on the free end of said bar, said trip-pawl adapted to engage over a right-angled surface and having a short extension to bear against the vertical part of 55 said surface to carry the pawl into position to automatically throw the said rod, substantially as shown and described.

3. The combination, with a couch-frame having a vertical slotted extension comprising a shoulder and a vertical bearing-surface, and a horizontal projection, and a side swinging frame hinged to the couch-frame, of a loosely-pivoted notched rod and a swinging 60 trip-pawl on the free end thereof, the trip-pawl embodying a flat plate having a short upwardly-extended part and an elongated lower part, said trip-pawl adapted to engage the horizontal projection and the vertical extension of the frame and throw the notched 65 rod, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 14th day of March, 1901.

DAVID C. STORR.

Witnesses:

BELLE PATERSON,
SOPHIA HARNISCH.